



The LS333ANS-2LED is a swimming pool rated luminaire and is one of Lumascope's most popular. It is constructed entirely of 316 marine grade stainless steel and utilises a special alignment feature to ensure the beam of light is perpendicular to the installation surface, even if the pre-installation blockout niche is not. The use of LEDs allows for the creative introduction of colour and improved energy efficiency.

Performance

Static White & Colour	Lumen Output (lm)	Efficacy (lm/W)	Peak Intensity (cd)
● 3,000 K (80 CRI)	479	67	6,847
● 4,000 K (80 CRI)	592	82	7,420
● Blue (470nm)	-	-	-

Static white lumen output values are based on a 6W luminaire with 14° lens.

Dynamic Colour	Lumen Output (lm)	Efficacy (lm/W)	Peak Intensity (cd)
● RGB	149	19.4	313

Dynamic colour lumen output values are based on a 6W luminaire with 40° lens.

Beam Angles	14°, 20°, 25°, 40° Not available with all light engines. Refer to Specification Matrix.
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Electrical

LED Power	3W, 6W or 9W
Consumption	7.2W (nominal for 6W)
Input Voltage	Low Voltage 24V DC (International Market) 12-15V AC, 12-24V DC (North American Market)
Equivalent Rating	6W/450lm LED is approximately equivalent to 40W incandescent lamp 9W/700lm LED is approximately equivalent to 60W incandescent lamp

Control

Protocols	PWM (0-10V to PWM and DMX to PWM converters available)
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Physical

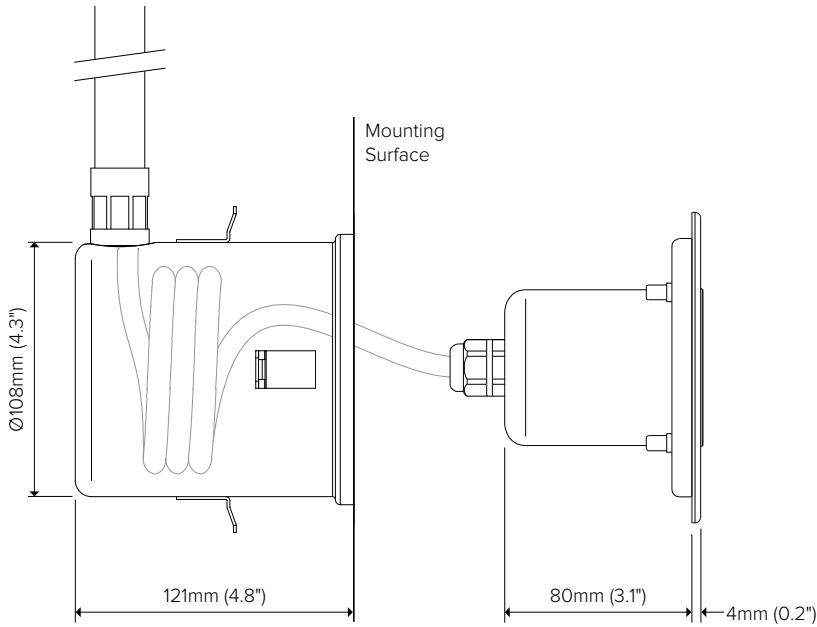
Housing	316 Marine Grade Stainless Steel with Teflon coated cover screws
Installation	Pre-installation niche included
Water Temperature Rating	5°C to 40°C (41°F to 104°F)



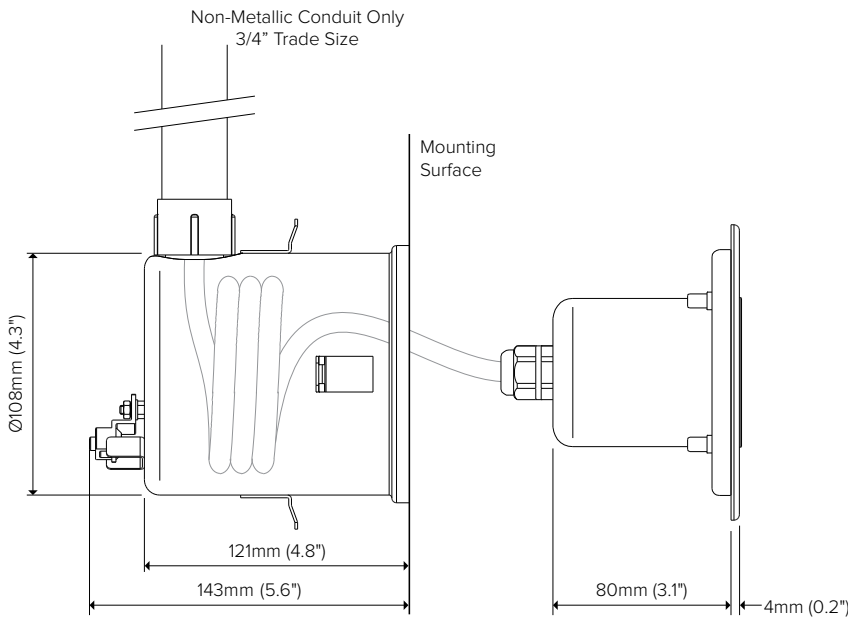
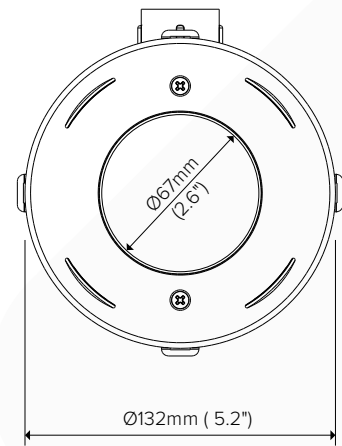
Certification & Compliance

IP Rating	IP68 to 10m (33ft)
IK Rating	IK10 with OptiClear™ lens
Environment	Swimming pool, spa and fountains - wet niche (Not approved for use in Canada)
Certifications	CE, UL676 Underwater Luminaires

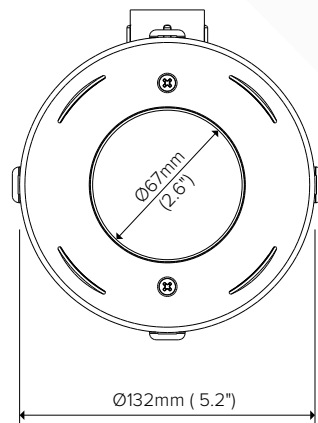
Luminaire Dimensions

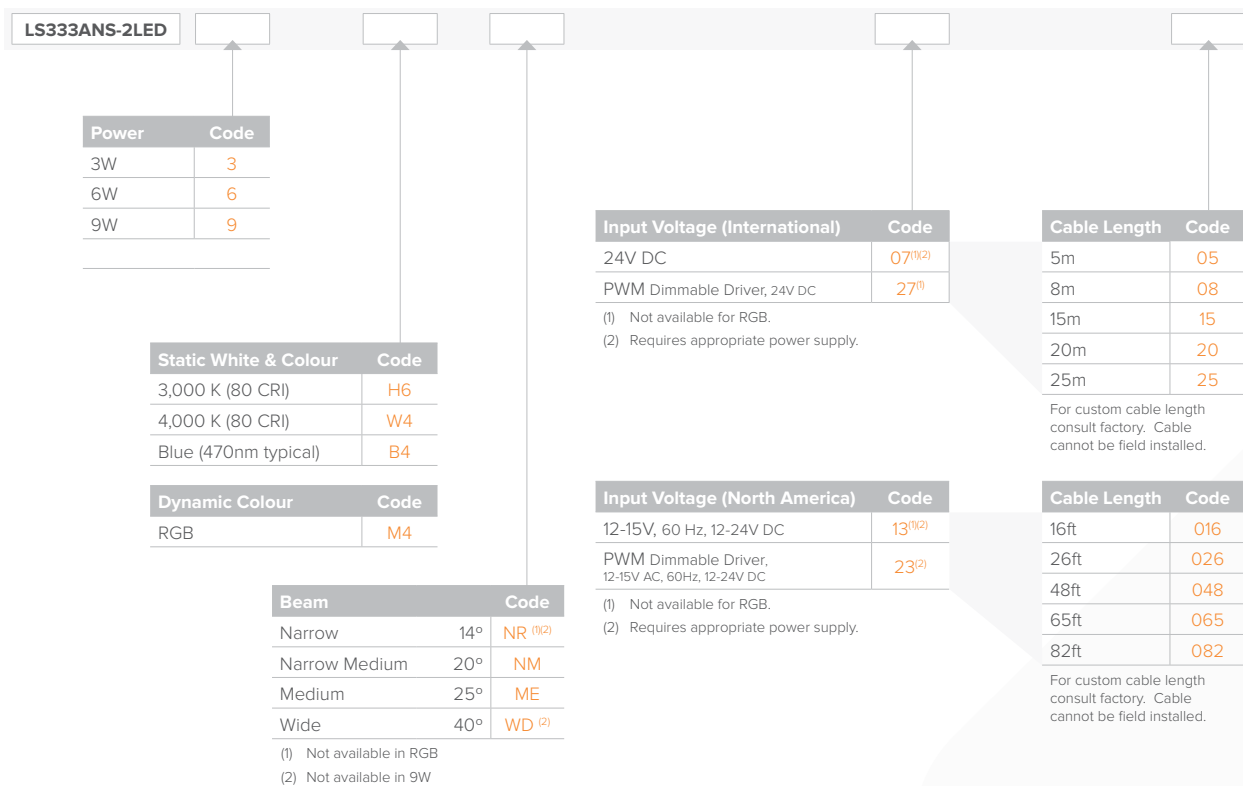


International market configuration

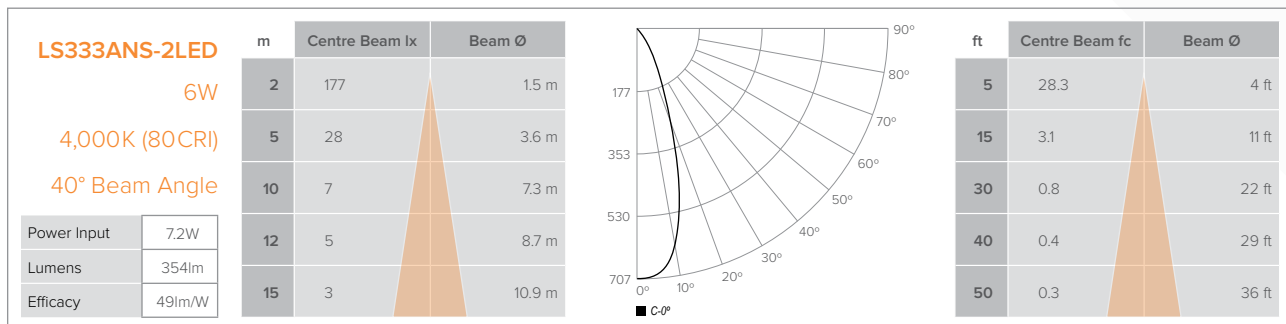
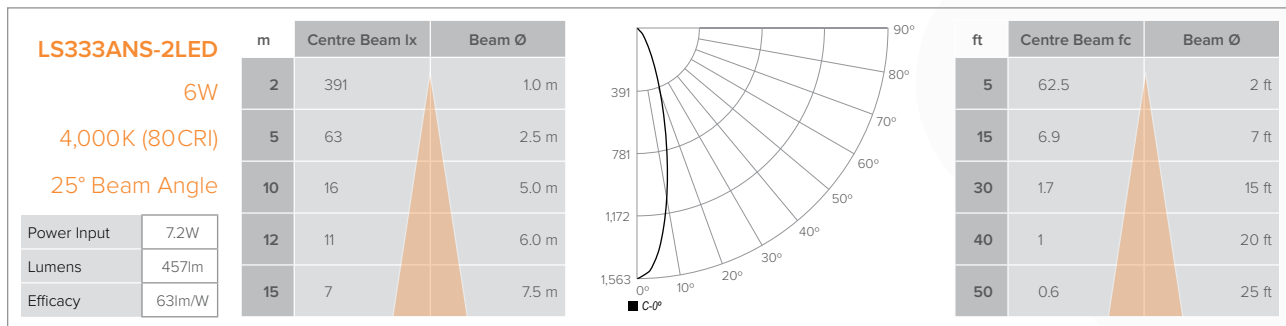
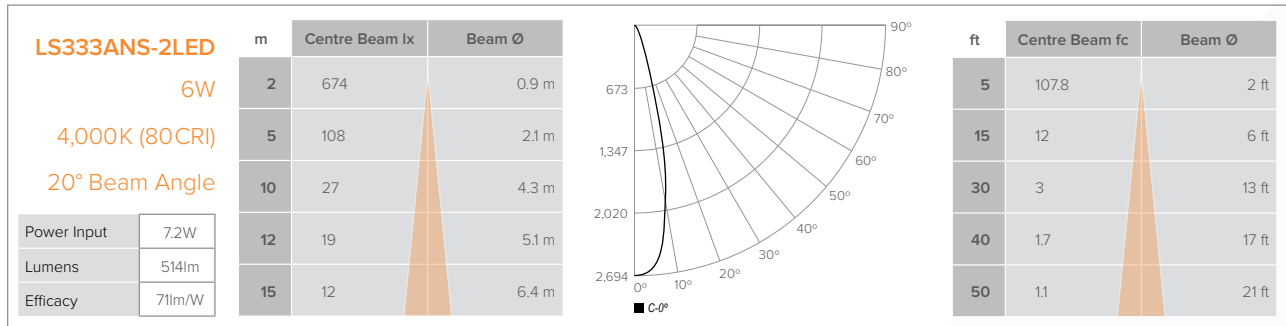
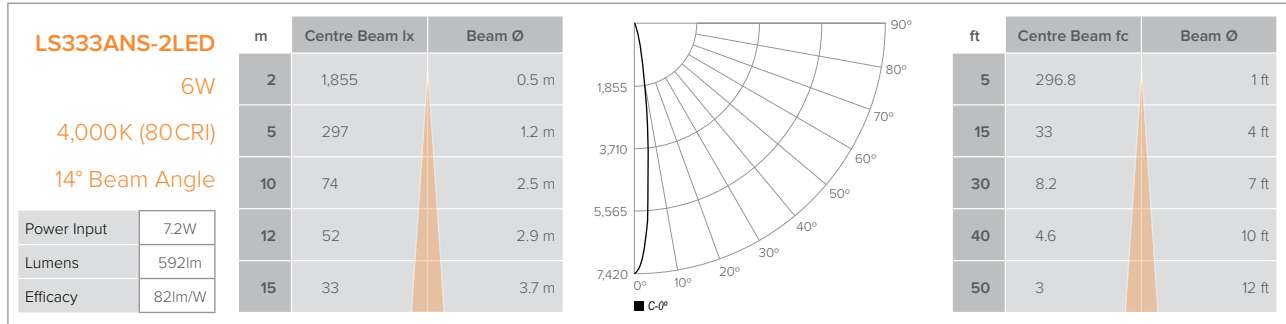


North American market configuration

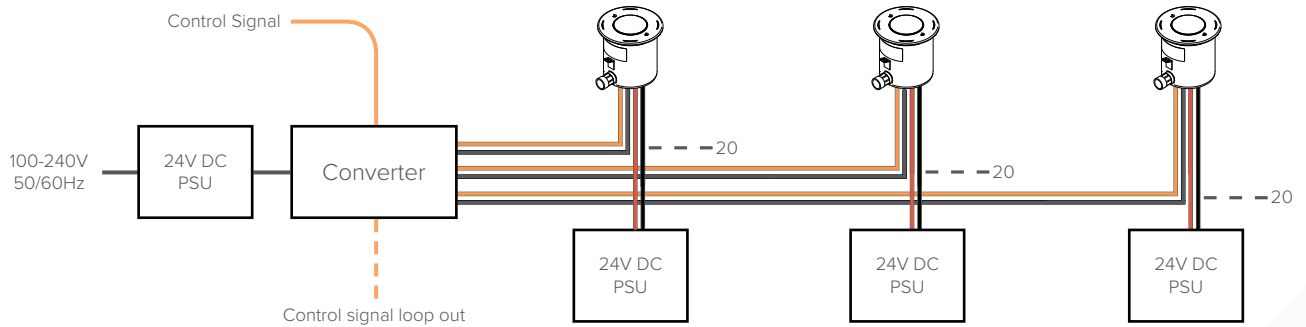




Photometric data is based on test results from a NIST traceable testing lab. IES data is available at www.lumascap.com
 Note: No depreciation factor is applied to the data shown.



Wiring Diagram - Static Colour (DMX)



Control Protocols

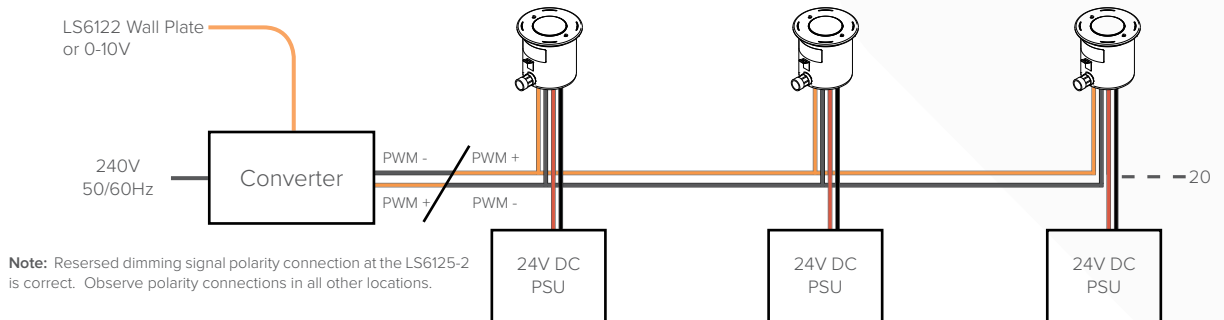
DMX

For DMX control signal, use LS67100 DMX to PWM converter

Up to 20 luminaires per run under the following conditions:

- Up to three (3) individually addressed dimmable channels
- Up to 20 luminaires per dimmable channel
- Luminaires driven by integral LED drivers
- Luminaires powered through individual power supplies
- Refer to 'Maximum Circuit Load' table for circuit limitations
- Always observe local electrical codes for branch circuit current limitations
- Suitable for installation into swimming pools in Australia

Wiring Diagram - Static Colour (0-10V)



Control Protocols

0-10V

For 0-10V control signal, use LS6125-2 0-10V to PWM converter

Up to 20 luminaires per run under the following conditions:

- Stand alone static colour dimming solution
- Up to 20 luminaires dimmed together
- Luminaires driven by integral LED drivers using LS6122 wall plate dimmer
- Luminaires powered through individual power supplies
- Refer to 'Maximum Circuit Load' table for circuit limitations
- Always observe local electrical codes for branch circuit current limitations
- Suitable for installation into swimming pools in Australia

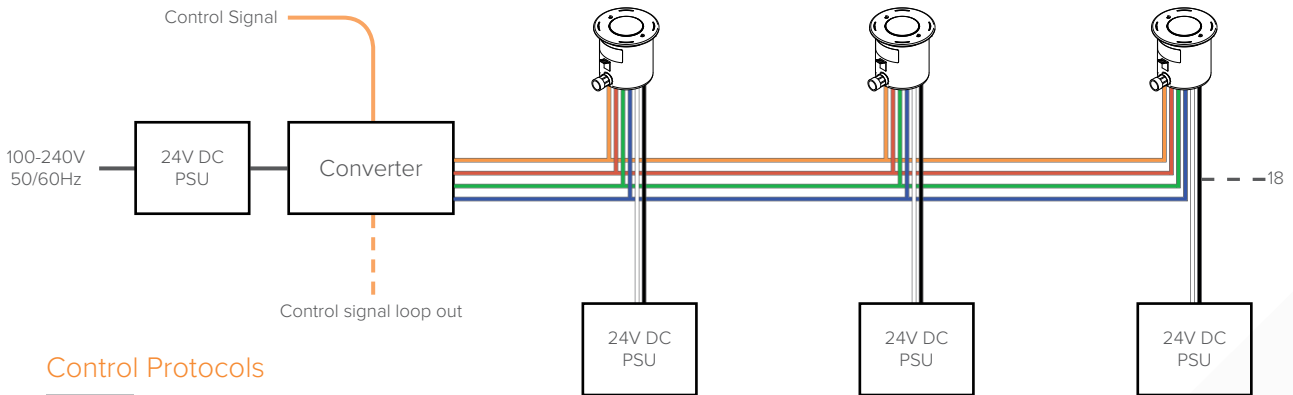
Maximum Circuit Load

Compatibility with each driver is indicated by the value shown in the table, representing the maximum number of luminaires that may be powered from each driver based on a maximum cable run of 100m (328ft) and a trunk cable size of 3.3mm². Please note, this does not take into consideration voltage drop beyond a distance of 100m or ampacity limits of the branch circuit. For assistance, please consult factory.

LSLED-24V Power Supplies			
Input Voltage	100-240V, 50/60Hz		
Output Voltage	24V DC		
Wattage	40W	100W	150W
LS333ANS-2LED, 3W	5	18	23
LS333ANS-2LED, 6W	3	10	14
LS333ANS-2LED, 9W	-	6	9

NOTE: The above diagrams are intended to show electrical pathways between luminaires and ancillary device. These diagrams are not intended to show type or colour of cord / wire, luminaire input voltage rating, wire gauge or approved use of the cord / wire supplied with luminaires.

Wiring Diagram - Dynamic Colour (DMX)



Control Protocols

DMX For DMX control signal, use LS67100 DMX to PWM converter

Up to 18 luminaires per run under the following conditions:

- Up to 18 luminaires addressed and controlled together
- Luminaires driven by integral LED drivers
- Luminaires powered through individual power supplies
- Refer to 'Maximum Circuit Load' table for circuit limitations
- Always observe local electrical codes for branch circuit current limitations
- Suitable for installation into swimming pools in Australia

Maximum Circuit Load

Compatibility with each driver is indicated by the value shown in the table, representing the maximum number of luminaires that may be powered from each driver based on a maximum cable run of 100m (328ft) and a trunk cable size of 3.3mm². Please note, this does not take into consideration voltage drop beyond a distance of 100m or ampacity limits of the branch circuit. For assistance, please consult factory.

LSLED-24V Power Supplies			
Input Voltage	100-240V, 50/60Hz		
Output Voltage	24V DC		
Wattage	40W	100W	150W
LS333ANS-2LED, 3W	5	18	23
LS333ANS-2LED, 6W	3	10	14
LS333ANS-2LED, 9W	-	6	9

NOTE: The above diagrams are intended to show electrical pathways between luminaires and ancillary device. These diagrams are not intended to show type or colour of cord / wire, luminaire input voltage rating, wire gauge or approved use of the cord / wire supplied with luminaires.

Power Supply Specifications

DC Power Supplies

LSLED-24V100W240

24V DC Ripple Free Power Supply

Input	170-250V AC, 50/60Hz
Output	100W, 24V DC, 4.2A
Ambient Temperature Rating	-10°C to 50°C
Compliance	IEC61347-2-13, CE
IP Rating	IP66
Short Circuit Protection	Yes
Open Circuit Protection	Yes
Protection Class	Class II CE

LSLED-24V150W240

24V DC Ripple Free Power Supply

Input	90-305V AC, 50/60Hz
Output	150W, 24V DC, 6.3A
Ambient Temperature Rating	-10°C to 50°C
Compliance	IEC61347-2-13, CE
IP Rating	IP66
Short Circuit Protection	Yes
Open Circuit Protection	Yes
Protection Class	Class II CE

LSLED-24V40W240

Electronic DC Power Supply - wall mounted

Input	100-240V AC, 50/60Hz
Rating	40W / 1.67A
Output	24V
Ambient Temperature Rating	-25°C to 60°C (-13°F to 140°F)
Output Circuits	1
Approvals	CE, EN60950-1, EN61347-2-13
IP Rating	IP65/67
Dimensions	H 171mm W 62mm L 37mm (H 6.7" / W 2.4" / L 1.5")
Weight	0.7kg (1.6lb)

Control Related Equipment

LS6125-2

0-10V to PWM translator - wall mounted

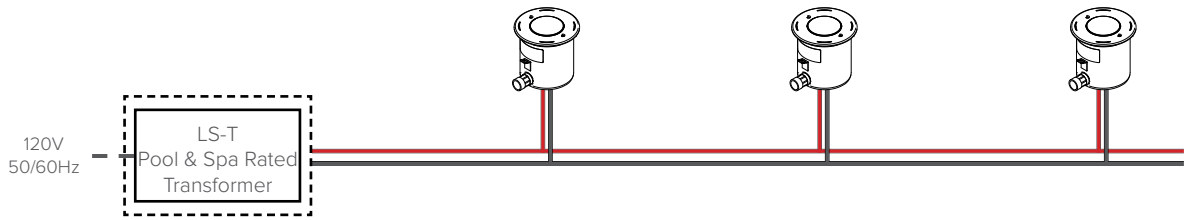
Input	100-240V AC, 50/60Hz
Rating	20W / 0.83A
Output	24V
Ambient Temperature Rating	-10°C to 50°C
Open Circuits	1
Control Protocol	0-10V
Approvals	CE
IP Rating	IP65/67
Dimensions	H 204mm W 166mm L 91mm (H 8.0" / W 6.5" / L 3.6")
Weight	0.5kg (1.1lb)

LS67100

DMX to PWM translator

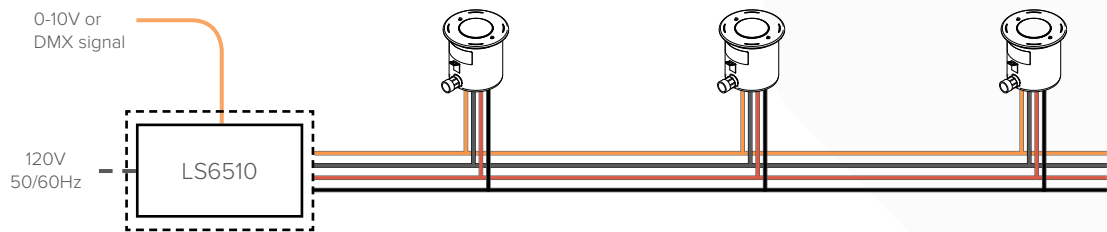
Input	24V DC
Rating	4 x 60W max
Output	4 x 2.5A max
Open Circuits	4
Approvals	CE, UL
IP Rating	IP65
Dimensions	H 286mm W 117mm L 82mm (H 11.25" / W 4.6" / L 3.2")
Weight	0.2kg (0.5lb)

Wiring Diagram - Static Colour - Non-Dimming 12-15V AC



Wiring Diagram - Static Colour (0-10V / DMX) on 24V DC Circuit

Please note: The use of a GFCI may be required. Consult local wiring rules.



Control Protocols

- 0-10V

For 0-10V control signal, use LS6510 0-10V to PWM converter
- DMX

For DMX control signal, use LS6510 converter

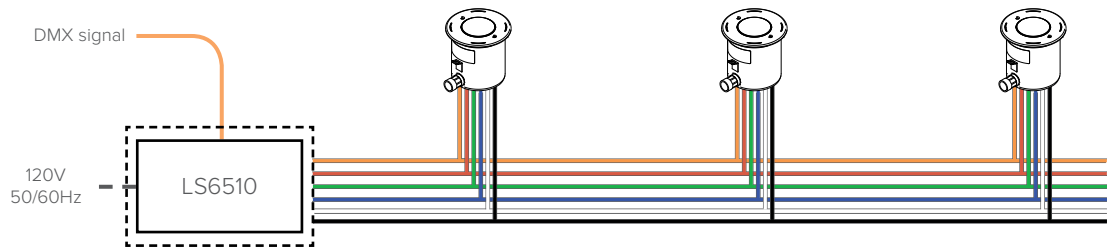
Maximum Circuit Load

Compatibility with each transformer or power supply is indicated by the value shown in the table, representing the maximum number of luminaires that may be powered from each transformer or power supply. Please note, this does not take into consideration voltage drop or ampacity limits of the branch circuit. In addition, dimming circuit total wire length must be kept under 328' (100m). For assistance, please consult factory.

	Pool, Spa & Fountain Power Supply			
	LS-T-100	LS-T-300	LS-T-500	LS6510
Input Voltage	120V, 60Hz			120V, 60Hz
Output Voltage	12/13/14V, 60Hz			24V DC
Wattage	100W	300W	500W	240W
LS333ANS-2LED, 3W	14	42	70	45
LS333ANS-2LED, 6W	7	23	38	29
LS333ANS-2LED, 9W	5	15	25	18

NOTE: The above diagrams are intended to show electrical pathways between luminaires and ancillary device. These diagrams are not intended to show type or colour of cord / wire, luminaire input voltage rating, wire gauge or approved use of the cord / wire supplied with luminaires.

Wiring Diagram - Dynamic Colour (DMX) for 24V DC Circuit



Control Protocols



For DMX control signal, use LS67100 DMX to PWM converter

Maximum Circuit Load

Compatibility with each transformer or power supply is indicated by the value shown in the table, representing the maximum number of luminaires that may be powered from each transformer or power supply. Please note, this does not take into consideration voltage drop or ampacity limits of the branch circuit. In addition, dimming circuit total wire length must be kept under 328' (100m). For assistance, please consult factory.

	Pool, Spa & Fountain Power Supply			
	LS-T-100	LS-T-300	LS-T-500	LS6510
Input Voltage	120V, 60Hz			120V, 60Hz
Output Voltage	12/13/14V, 60Hz			24V DC
Wattage	100W	300W	500W	240W
LS333ANS-2LED, 3W	14	42	70	45
LS333ANS-2LED, 6W	7	23	38	29
LS333ANS-2LED, 9W	5	15	25	18

NOTE: The above diagrams are intended to show electrical pathways between luminaires and ancillary device. These diagrams are not intended to show type or colour of cord / wire, luminaire input voltage rating, wire gauge or approved use of the cord / wire supplied with luminaires.

Transformer / Power Supply Specifications

Pool, Spa and Fountain Transformers

LS6510

Power Unit for Pool, Spa & Fountain Luminaires

Input	120V
Rating	240W
Output	24 or 30V DC
Output Circuits	1
Approvals	UL 379, CAN/CSA C22.2 No. 218.1, 218.2, CE
IP Rating	IP65, suitable for wet locations
Dimensions	H 5.3" W 13.4" D 9.3" (H 134mm / W 341mm / D 236mm)
Weight	13.2lb (6.0kg)

LS-T-300

Magnetic Transformer - wall mounted

Input	120V
Rating	300W
Output	12 / 13 / 14V
Output Circuits	1
Protection	Electrostatic shield, short circuit and over-voltage breaker
Approvals	UL, CUL
NEMA Rating	3R
Construction	Powder coated steel
Dimensions	H 9.06" W 5.06" D 4.59" (H 230mm / W 129mm / D 117mm)
Weight	13lb (5.9kg)

LS-T-100

Magnetic Transformer - wall mounted

Input	120V
Rating	100W
Output	12 / 13 / 14V
Output Circuits	1
Protection	Electrostatic shield, short circuit and over-voltage breaker
Approvals	UL, CUL
NEMA Rating	3R
Construction	Powder coated steel
Dimensions	H 9.06" W 5.06" D 4.59" (H 230mm / W 129mm / D 117mm)
Weight	12.5lb (5.7kg)

LS-T-500

Magnetic Transformer - wall mounted

Input	120V
Rating	500W
Output	12 / 13 / 14V
Output Circuits	1
Protection	Electrostatic shield, short circuit and over-voltage breaker
Approvals	UL, CUL
NEMA Rating	3R
Construction	Powder coated steel
Dimensions	H 9.06" W 5.06" D 4.59" (H 230mm / W 129mm / D 117mm)
Weight	14lb (6.4kg)